

**NATIONAL MILK DRUG RESIDUE DATA BASE
FISCAL YEAR 1996 ANNUAL REPORT**

October 1, 1995 - September 30, 1996

Submitted by:

**GLH, Incorporated
2900 NE 46th Street
Lighthouse Point, FL 33064
954-783-9819**

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October 1, 1995 - September 30, 1996

INTRODUCTION

The National Milk Drug Residue Data Base is a voluntary industry reporting program. Mandatory reporting is required by State regulatory agencies under the National Conference on Interstate Milk Shipments (NCIMS). Data are reported on the extent of the national testing activities, the analytical methods used, the kind and extent of the animal drug residues identified, and the amount of contaminated milk, including whether it was disposed of properly for non-human use. The system includes all milk, Grade A and non-Grade A, commonly known as manufacturing grade. Grade A milk represents approximately 90% of the milk supply and is regulated through NCIMS by State regulatory agencies. Manufacturing grade milk is under the direction of the regulatory agencies in the States where it is produced and may be subject to the standards recommended by the United States Department of Agriculture (USDA). Data reported to the National Milk Drug Residue Data Base are for educational and analytical purposes and are not intended or suitable for regulatory follow-up.

BACKGROUND

NCIMS is a cooperative State-Public Health Service/Food and Drug Administration (FDA) Program for certification of interstate milk shippers. Its procedures, administration, and enforcement actions provide the framework for the nation's Grade A milk safety program. During the 1991 meeting of the NCIMS, the Conference authorized a national program to compile the results of residue testing by industry and regulatory agencies.

Subsequently, FDA awarded a contract to develop a National Milk Drug Residue Data Base. The data base is operated by an independent third party, under contract to the FDA. The data base design was developed in consultation with a project advisory group with members from the FDA and a NCIMS committee representing dairy producers, dairy processors, USDA, State regulatory agencies, and academia. The data base was designed to promote maximum participation by the dairy industry to report on a voluntary basis all of their testing without compromising any confidential data. Information regarding individual firm's data is not submitted to the data base contractor.

Two States, New York and Oklahoma, began submitting data in April 1993 to pilot-test the data base. At the end of July 1993, all States were requested to begin reporting their testing data and the testing data of their State's dairy industry to the data base contractor. As of October 31, 1994, all fifty States and Puerto Rico were participating in the data base program. The data base includes results of the National Drug Residue Milk Monitoring Program (NDRMMP), a national drug residue in milk sampling program administered by FDA with the full cooperation by the States. Results from this program are reported to the data base by the States.

It is important to recognize that the samples and tests reported do not necessarily represent one hundred percent of the milk supply from every State. However, as State and industry participation in the data base increased, reporting of the number of samples and tests similarly increased. Continuing efforts are being made to ensure that there is uniform reporting among all the States and the industry and to ensure that the drugs and test methods reported are correct.

SUMMARY

This report presents summary data on samples and tests conducted during the Fiscal Year 1996, October 1, 1995 to September 30, 1996. One State did not submit data during the first quarter of the fiscal year and one other State did not submit data for the fourth quarter of this period. Information on the status of reporting by individual States has been submitted to FDA and NCIMS.

The Pasteurized Milk Ordinance (PMO) requires that all bulk milk tankers be sampled and analyzed for animal drug residues before the milk is processed. Any tanker found positive is rejected for human consumption.

During this period, 4,565,600 samples were analyzed for animal drug residues. Of these samples, 5,404 were positive for a residue. A total of 4,812,772 tests were reported on the samples for 22 different groups of families or individual drugs. Fifty-two separate testing methods were used to analyze the samples for residues. Details are presented in the tables in this report.

SAMPLE RESULTS

A SAMPLE is defined as representing a load or lot of milk sampled and analyzed, e.g. a bulk milk pickup tanker, producer, or over-the-road tanker, a silo, etc.

Table 1 shows the results of the samples tested by source.

Data are reported by four SOURCES OF SAMPLES:

1. Bulk Milk Pickup Tanker - bulk raw milk from a dairy farm.
2. Pasteurized Fluid Milk and Milk Products - after pasteurization; finished product in package form or bulk. Includes milk products such as milk, cream, condensed milk and dry milk products, and condensed and dry whey products.
3. Producer - raw milk obtained from a dairy farm. Samples are reported by the permitting State, rather than by the analyzing State.
4. Other - milk from silos, over-the-road tankers, etc.

A POSITIVE result, as used in this report, means that the sample was found to be positive for a drug residue by a test acceptable for taking regulatory action in a certified laboratory by a certified analyst or the milk was rejected on the basis of an initial test by the milk processors.

The DISPOSITION PER PMO column represents the amount of milk contained in the tank or lot found to be positive and disposed of in accordance with the PMO and/or applicable State regulations. The PMO governs the rules which State agencies use to implement their milk program.

TABLE 1 -- Sample Results October 1, 1995 to September 30, 1996				
Source of Sample	Total Samples	Number Positive	Percent Positive	Disposition per PMO (Pounds)
Bulk Milk Pick-Up Tanker	3,384,779	3,530	0.104%	115,952,000
Pasteurized Fluid Milk and Milk Products	78,557	2	0.003%	0
Producer	956,014	1,817	0.190%	8,868,000
Other	146,250	55	0.038%	2,405,000
TOTALS	4,565,600	5,404	*	127,225,000

The asterisk (*) notes that a summary of the percent positive cannot be provided because there is not uniformity in terms of sampling in the four categories. For example, the PMO sets forth specific sampling requirements for beta-lactam testing as follows:

1. **Bulk Milk Pickup Tanker Samples** -- samples are taken daily on every tanker;
2. **Pasteurized Fluid Milk and Milk Products** -- a minimum of four samples must be tested for each product at each plant every six months;
3. **Producer** -- each producer must be tested at least four times every six months; and
4. **Other** -- samples are conducted on a random basis.

Table 2 presents these results in greater detail and shows the number of samples conducted by industry and by regulatory agencies. Industry samples are taken by processing facilities, receiving and transfer stations, and marketing groups or cooperatives. Industry samples may be conducted to meet the industry requirements of Appendix N of the PMO which sets forth testing requirements for animal drug residues or for quality control purposes. Regulatory samples are taken by State and local regulatory agencies.

**TABLE 2 -- Industry and Regulatory Samples
October 1, 1995 to September 30, 1996**

Source of Sample	Number of Industry Samples	Number of Positive Industry Samples	Number of Regulatory Samples	Number of Positive Regulatory Samples	Total Samples	Total Positive Samples	Total Percent Positive	Disposition Per PMO (Pounds)
GRADE A								
Bulk Milk Pick-Up Tanker	2,988,814	2,961	17,820	153	3,006,634	3,114	0.104%	103,866,000
Pasteurized Fluid Milk and Milk Products	12,351	0	65,427	0	77,778	0	0%	0
Producer	655,079	1,227	216,803	357	871,882	1,584	0.182%	8,680,000
Other	119,366	43	8,550	0	127,916	43	0.034%	2,074,000
NON-GRADE A								
Bulk Milk Pick-Up Tanker ¹	377,853	414	292	2	378,145	416	0.110%	12,086,000
Pasteurized Fluid Milk and Milk Products	43	0	736	2	779	2	0.257%	0
Producer	78,109	231	6,023	2	84,132	233	0.277%	188,000
Other	17,580	10	754	2	18,334	12	0.065%	331,000
TOTALS	4,249,195	4,886	316,405	518	4,565,600	5,404	*	127,225,000 ²

¹ It is a common practice in some States, including two large milk production States, that bulk milk pick-up tankers pickup milk from Grade A and non-Grade A milk producers on the same truck. Then, these loads are delivered to non-Grade A processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade A.

² Note that this represents 0.083% of the total milk supply of the annual production of 154 billion pounds.

* = See Table 1 for explanation.

TESTS CONDUCTED

An objective of the National Milk Drug Residue Data Base is to record every test run on each sample analyzed. Since some samples are analyzed for more than one drug residue, the number of tests run is greater than the number of samples. To avoid duplicate reporting of samples, the number of samples analyzed is reported separately from the number of tests run in the data base.

Table 3 presents summary results of the number of tests which were conducted during October 1, 1995 to September 30, 1996.

TABLE 3 -- Tests Conducted October 1, 1995 to September 30, 1996			
Source of Sample	Total Tests	Number of Tests Positive	Percent Positive
Bulk Milk Pick-Up Tanker	3,590,232	4,314	0.120%
Pasteurized Fluid Milk and Milk Products	79,855	2	0.003%
Producer	968,775	1,963	0.203%
Other	173,910	60	0.035%
TOTALS	4,812,772	6,339	*

* = See Table 1 for explanation.

Table 4 presents additional details in terms of the tests conducted by industry and by regulatory agencies.

**TABLE 4 -- Tests Conducted by Industry and Regulatory Agencies
October 1, 1995 to September 30, 1996**

Source of Sample	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Total Percent Positive
GRADE A							
Bulk Milk Pick-Up Tanker	3,176,928	3,627	32,560	205	3,209,488	3,832	0.119%
Pasteurized Fluid Milk and Milk Products	12,668	0	66,408	0	79,076	0	0%
Producer	659,990	1,327	218,807	366	878,797	1,693	0.193%
Other	143,773	44	11,315	2	155,088	46	0.030%
NON-GRADE A							
Bulk Milk Pick-Up Tanker ¹	380,296	480	448	2	380,744	482	0.127%
Pasteurized Fluid Milk and Milk Products	43	0	736	2	779	2	0.257%
Producer	83,652	263	6,326	7	89,978	270	0.300%
Other	17,607	11	1,215	3	18,822	14	0.074%
TOTALS	4,474,957	5,752	337,815	587	4,812,772	6,339	*

¹ It is a common practice in some States, including two large milk production States, that bulk milk pick-up tankers pickup milk from Grade A and non-Grade A milk producers on the same truck. Then, these loads are delivered to non-Grade A processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade A.

* = See Table 1 for explanation; Table 2 shows data on the disposition of milk in compliance with the PMO.

Table 5 shows the number of tests conducted by family and by individual drug

TABLE 5 -- Number of Tests Conducted by Family/Drug October 1, 1995 to September 30, 1996		
Family/Drug	Total Tests	Total Positive
AMINOGLYCOSIDES	8,440	4
Gentamicin	14,657	6
BETA-LACTAMS	4,480,530	6,148
Ceftiofur	6,370	7
Cloxacillin	4,183	10
CHLORAMPHENICOL	738	0
MACROLIDES	2,335	1
NOVOBIOCIN	521	0
SULFONAMIDES	118,740	44
Sulfachloropyridazine	51	0
Sulfadiazine	51	0
Sulfadimethoxine	22,198	4
Sulfamerazine	51	0
Sulfamethazine	47,600	5
Sulfapyridine	51	0
Sulfanilamide	50	0
Sulfaquinoxaline	51	0
Sulfathiazole	22,198	1
TETRACYCLINES	83,504	103
Chlortetracycline	151	0
Oxytetracycline	151	0
Tetracycline	151	6

**TABLE 5 -- Number of Tests Conducted by Family/Drug
October 1, 1995 to September 30, 1996**

Family/Drug	Total Tests	Total Positive
TOTALS	4,812,772	6,339

Table 6 presents details on the tests used. The data in this table are comparable to Table 5, but the data are arranged by tests within each family/drug. Therefore, the totals are the same in both tables. The data show that 52 tests were used to analyze the samples for residues. The test with the largest use was Snap - Beta-Lactams, used to test over 1.47 million samples.

**TABLE 6 - Number of Tests by Method by Family/Drug
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Tests	Number Positive	Percent Positive
AMINOGLYCOSIDES			
Charm II Tablet Competitive - Aminoglycosides	2,552	2	0.078%
Charm II Tablet Sequential - Aminoglycosides	5,888	2	0.034%
GENTAMICIN			
Charm II Tablet Competitive - Gentamicin	2,762	4	0.145%
Cite Probe Gentamicin	6,360	2	0.031%
ID Block - Gentamicin	28	0	0%
Lak Tek - Gentamicin	5,507	0	0%
BETA-LACTAMS			
Charm BSDA Tablet - Beta-Lactams	181,854	277	0.152%
Charm Farm - Beta-Lactams	1,606	1	0.062%
Charm I Liquid - Beta-Lactams	24,920	19	0.076%
Charm I/Cowside II Tablet - Beta-Lactams	112,064	120	0.107%
Charm II Liquid - Beta-Lactams	2,831	2	0.071%
Charm II Tablet Competitive - Beta-Lactams	513,606	447	0.087%
Charm II Tablet Quantitative - Beta-Lactams	27,434	349	1.272%
Charm II Tablet Sequential - Beta-Lactams	574,685	525	0.091%
Charm II Tablet Transit - Beta-Lactams	17,536	19	0.108%
Charm Rapid Inhibition Test - Beta-Lactams	124	0	0%

**TABLE 6 - Number of Tests by Method by Family/Drug
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Tests	Number Positive	Percent Positive
Delvo-X-PRESS - Beta-Lactams	20,340	57	0.280%
Delvotest P 5 Pack - Beta-Lactams	6,931	8	0.115%
Delvotest P/Delvotest P Mini - Beta-Lactams	68,121	93	0.137%
Delvotest SP/Delvotest SP Mini - Beta-Lactams	5,757	0	0%
Difco BSDA - Beta-Lactams	734,578	1,273	0.173%
Lak Tek - Beta-Lactams	365,553	355	0.097%
Penzyme III Test - Beta-Lactams	145,225	100	0.069%
Penzyme Milk Test - Beta-Lactams	44,658	38	0.085%
Snap (Reader) - Beta-Lactams	41,647	149	0.358%
Snap (Visual) - Beta-Lactams	117,358	81	0.069%
Snap - Beta-Lactams	1,473,702	2,235	0.152%
CEFTIOFUR			
Lak Tek - Ceftiofur	6,370	7	0.110%
CLOXACILLIN			
Charm I/Cowside II Tablet - Cloxacillin	12	0	0%
Charm II Tablet Quantitative - Cloxacillin	335	9	2.687%
Charm II Test for Cloxacillin in Milk	3,836	1	0.026%
CHLORAMPHENICOL			
Charm II Tablet Competitive - Chloramphenicol	472	0	0%
GC Chloramphenicol - FDA Method	220	0	0%
Lak Tek - Chloramphenicol	46	0	0%
MACROLIDES			
Charm I/Cowside II Tablet - Macrolides	22	0	0%
Charm II Tablet Competitive - Macrolides	1,034	1	0.097%
Charm II Tablet Sequential - Macrolides	1,279	0	0%
NOVOBIOCIN			
Charm II Tablet Competitive - Novobiocin	521	0	0%

**TABLE 6 - Number of Tests by Method by Family/Drug
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Tests	Number Positive	Percent Positive
SULFONAMIDES			
Agri-Screen for Sulfonamides	40	0	0%
Charm I/Cowside II Tablet - Sulfonamides	248	0	0%
Charm II Liquid - Sulfonamides	58	0	0%
Charm II Tablet Competitive - Sulfonamides	77,189	21	0.027%
Charm II Tablet Sequential - Sulfonamides	40,813	20	0.049%
TLC Sulfonamide	392	3	0.765%
SULFACHLOROPYRIDAZINE			
HPLC 8 Sulfonamides - Sulfachloropyridazine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFADIAZINE			
HPLC 8 Sulfonamides - Sulfadiazine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFADIMETHOXINE			
Cite Sulfa Trio - Sulfadimethoxine	22,147	4	0.018%
HPLC 8 Sulfonamides - Sulfadimethoxine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFAMERAZINE			
HPLC 8 Sulfonamides - Sulfamerazine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFAMETHAZINE			
Cite Sulfa Trio - Sulfamethazine	22,147	4	0.018%
HPLC 8 Sulfonamides - Sulfamethazine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
ID Block - Sulfamethazine	66	0	0%
Lak Tek - Sulfamethazine	25,336	1	0.004%
SULFAPYRIDINE			

**TABLE 6 - Number of Tests by Method by Family/Drug
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Tests	Number Positive	Percent Positive
HPLC 8 Sulfonamides - Sulfapyridine	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFANILAMIDE			
Other (Test Method Not Identified)	50	0	0%
SULFAQUINOXALINE			
HPLC 8 Sulfonamides - Sulfaquinoxaline	1	0	0%
Other (Test Method Not Identified)	50	0	0%
SULFATHIAZOLE			
Cite Sulfa Trio - Sulfathiazole	22,147	1	0.005%
HPLC 8 Sulfonamides - Sulfathiazole	1	0	0%
Other (Test Method Not Identified)	50	0	0%
TETRACYCLINES			
Charm II Tablet Competitive - Tetracyclines	53,723	85	0.158%
Lak Tek - Tetracyclines	7,487	0	0%
Snap - Tetracyclines	22,294	18	0.081%
CHLORTETRACYCLINE			
HPLC Tetracyclines - Chlortetracycline	151	0	0%
OXYTETRACYCLINE			
HPLC Tetracyclines - Oxytetracycline	151	0	0%
TETRACYCLINE			
HPLC Tetracyclines - Tetracycline	151	6	3.974%
TOTALS	4,812,772	6,339	*

* = See Table 1 for explanation.

Tables 7-1 to 7-8 present additional details of the testing conducted. These tables show the testing by family and by individual drugs and present results in terms of Grade A and non- Grade A testing. Data on individual

drugs listed in these tables, e.g., gentamicin, ceftiofur, etc., are not included in the total for the family, e.g., aminoglycosides, beta-lactams, etc.

**TABLE 7-1 -- Grade A Bulk Milk Pick-Up Tanker Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES	7,384	3	389	1	7,773	4
Gentamicin	9,628	1	1,742	1	11,370	2
BETA-LACTAMS	2,902,222	3,485	16,296	183	2,918,518	3,668
Ceftiofur	3,785	5	313	1	4,098	6
Cloxacillin	4,177	9	0	0	4,177	9
CHLORAMPHENICOL	46	0	5	0	51	0
MACROLIDES	1,534	1	133	0	1,667	1
NOVOBIOCIN	48	0	0	0	48	0
SULFONAMIDES	112,857	38	478	3	113,335	41
Sulfachloropyridazine	0	0	50	0	50	0
Sulfadiazine	0	0	50	0	50	0
Sulfadimethoxine	11,921	2	3,289	0	15,210	2
Sulfamerazine	0	0	50	0	50	0
Sulfamethazine	36,968	2	3,289	1	40,257	3
Sulfapyridine	0	0	50	0	50	0
Sulfanilamide	0	0	50	0	50	0
Sulfaquinoxaline	0	0	50	0	50	0
Sulfathiazole	11,921	0	3,289	0	15,210	0
TETRACYCLINES	74,437	81	2,956	13	77,393	94
Chlortetracycline	0	0	27	0	27	0
Oxytetracycline	0	0	27	0	27	0
Tetracycline	0	0	27	2	27	2
TOTALS	3,176,928	3,627	32,560	205	3,209,488	3,832

**TABLE 7-2 -- Grade A Pasteurized Fluid Milk and Milk Products Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES	0	0	33	0	33	0
Gentamicin	40	0	374	0	414	0
BETA-LACTAMS	12,189	0	64,893	0	77,082	0
Ceftiofur	0	0	1	0	1	0
MACROLIDES	165	0	0	0	165	0
SULFONAMIDES	212	0	253	0	465	0
Sulfadimethoxine	6	0	174	0	180	0
Sulfamethazine	6	0	206	0	212	0
Sulfathiazole	6	0	174	0	180	0
TETRACYCLINES	44	0	300	0	344	0
TOTALS	12,668	0	66,408	0	79,076	0

**TABLE 7-3 -- Grade A Producer Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES	0	0	131	0	131	0
Gentamicin	104	0	392	3	496	3
BETA-LACTAMS	656,155	1,324	217,200	352	873,355	1,676
Ceftiofur	44	1	0	0	44	1
Cloxacillin	3	0	1	0	4	0
SULFONAMIDES	3,164	0	133	2	3,297	2
Sulfadimethoxine	116	0	18	0	134	0
Sulfamethazine	182	0	275	2	457	2
Sulfathiazole	116	0	18	0	134	0
TETRACYCLINES	106	2	282	5	388	7
Chlortetracycline	0	0	119	0	119	0
Oxytetracycline	0	0	119	0	119	0
Tetracycline	0	0	119	2	119	2
TOTALS	659,990	1,327	218,807	366	878,797	1,693

**TABLE 7-4 -- Grade A Other Testing (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES	472	0	31	0	503	0
Gentamicin	1,790	1	168	0	1,958	1
BETA-LACTAMS	115,781	41	8,758	0	124,539	41
Ceftiofur	2,197	0	0	0	2,197	0
CHLORAMPHENICOL	472	0	0	0	472	0
MACROLIDES	472	0	31	0	503	0
NOVOBIOCIN	473	0	0	0	473	0
SULFONAMIDES	1,113	0	125	0	1,238	0
Sulfachloropyridazine	0	0	1	0	1	0
Sulfadiazine	0	0	1	0	1	0
Sulfadimethoxine	5,761	2	529	0	6,290	2
Sulfamerazine	0	0	1	0	1	0
Sulfamethazine	5,761	0	529	0	6,290	0
Sulfapyridine	0	0	1	0	1	0
Sulfaquinoxaline	0	0	1	0	1	0
Sulfathiazole	5,761	0	529	1	6,290	1
TETRACYCLINES	3,720	0	607	1	4,327	1
Chlortetracycline	0	0	1	0	1	0
Oxytetracycline	0	0	1	0	1	0
Tetracycline	0	0	1	0	1	0
TOTALS	143,773	44	11,315	2	155,088	46

**TABLE 7-5 -- Non-Grade A Bulk Milk Pick-Up Tanker Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES						
Gentamicin	318	0	33	0	351	0
BETA-LACTAMS	378,103	479	295	2	378,398	481
Ceftiofur	0	0	30	0	30	0
SULFONAMIDES	331	0	0	0	331	0
Sulfadimethoxine	195	0	15	0	210	0
Sulfamethazine	195	0	15	0	210	0
Sulfathiazole	195	0	15	0	210	0
TETRACYCLINES	959	1	45	0	1,004	1
TOTALS	380,296	480	448	2	380,744	482

**TABLE 7-6 -- Non-Grade A Pasteurized Fluid Milk and Milk Products Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA-LACTAMS	43	0	736	2	779	2
TOTALS	43	0	736	2	779	2

**TABLE 7-7 -- Non-Grade A Producer Testing
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES						
Gentamicin	0	0	14	0	14	0
BETA-LACTAMS	83,652	263	6,022	4	89,674	267
SULFONAMIDES	0	0	12	1	12	1
Sulfadimethoxine	0	0	83	0	83	0
Sulfamethazine	0	0	83	0	83	0
Sulfathiazole	0	0	83	0	83	0
TETRACYCLINES	0	0	17	0	17	0
Chlortetracycline	0	0	4	0	4	0
Oxytetracycline	0	0	4	0	4	0
Tetracycline	0	0	4	2	4	2
TOTALS	83,652	263	6,326	7	89,978	270

**TABLE 7-8 -- Non-Grade A Other Testing (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
AMINOGLYCOSIDES						
Gentamicin	54	0	0	0	54	0
BETA-LACTAMS	17,245	11	940	2	18,185	13
Cloxacillin	0	0	2	1	2	1
CHLORAMPHENICOL	215	0	0	0	215	0
SULFONAMIDES	62	0	0	0	62	0
Sulfadimethoxine	0	0	91	0	91	0
Sulfamethazine	0	0	91	0	91	0
Sulfathiazole	0	0	91	0	91	0
TETRACYCLINES	31	0	0	0	31	0
TOTALS	17,607	11	1,215	3	18,822	14

Tables 8-1 to 8-8 present details on the number of tests conducted by industry and by regulatory agencies. The data are arranged by test within each family/drug and present results in terms of sample type and Grade A and non-Grade A testing. The data show that 52 tests were used to analyze the samples for residues.

**Table 8-1 -- Number of Tests by Method by Family/Drug
Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
AMINOGLYCOSIDES							
Charm II Tablet Competitive - Aminoglycosides	2,037	2	37	0	2,074	2	0.096%
Charm II Tablet Sequential - Aminoglycosides	5,347	1	352	1	5,699	2	0.035%
GENTAMICIN							
Charm II Tablet Competitive - Gentamicin	2,002	0	59	1	2,061	1	0.049%
Cite Probe Gentamicin	2,752	1	1,588	0	4,340	1	0.023%
ID Block - Gentamicin	0	0	24	0	24	0	0%
Lak Tek - Gentamicin	4,874	0	71	0	4,945	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	12,874	27	1,930	5	14,804	32	0.216%
Charm Farm - Beta-Lactams	1,579	1	0	0	1,579	1	0.063%
Charm I Liquid - Beta-Lactams	23,947	19	0	0	23,947	19	0.079%
Charm I/Cowside II Tablet - Beta-Lactams	96,682	113	202	1	96,884	114	0.118%
Charm II Liquid - Beta-Lactams	2,790	2	0	0	2,790	2	0.072%
Charm II Tablet Competitive - Beta-Lactams	465,230	401	190	0	465,420	401	0.086%
Charm II Tablet Quantitative - Beta-Lactams	25,682	332	346	6	26,028	338	1.299%
Charm II Tablet Sequential -	519,549	469	1,585	11	521,134	480	0.092%

**Table 8-1 -- Number of Tests by Method by Family/Drug
Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Beta-Lactams							
Charm II Tablet Transit - Beta-Lactams	11,592	17	0	0	11,592	17	0.147%
Charm Rapid Inhibition Test - Beta-Lactams	124	0	0	0	124	0	0%
Delvo-X-PRESS - Beta-Lactams	15,753	42	0	0	15,753	42	0.267%
Delvotest P 5 Pack - Beta-Lactams	0	0	81	0	81	0	0%
Delvotest P/Delvotest P Mini - Beta-Lactams	4,940	11	2,188	0	7,128	11	0.154%
Delvotest SP/Delvotest SP Mini - Beta-Lactams	1,362	0	0	0	1,362	0	0%
Difco BSDA - Beta-Lactams	8,952	5	4,161	2	13,113	7	0.053%
Lak Tek - Beta-Lactams	280,957	262	538	27	281,495	289	0.103%
Penzyme III Test - Beta-Lactams	67,301	52	0	0	67,301	52	0.077%
Penzyme Milk Test - Beta-Lactams	21,170	13	0	0	21,170	13	0.061%
Snap (Reader) - Beta-Lactams	36,030	94	29	4	36,059	98	0.272%
Snap (Visual) - Beta-Lactams	108,731	76	33	0	108,764	76	0.070%
Snap - Beta-Lactams	1,196,977	1,549	5,013	127	1,201,990	1,676	0.139%
CEFTIOFUR							
Lak Tek - Cefitofur	3,785	5	313	1	4,098	6	0.146%
CLOXACILLIN							
Charm I/Cowside II Tablet - Cloxacillin	12	0	0	0	12	0	0%

**Table 8-1 -- Number of Tests by Method by Family/Drug
Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Charm II Tablet Quantitative - Cloxacillin	330	8	0	0	330	8	2.424%
Charm II Test for Cloxacillin in Milk	3,835	1	0	0	3,835	1	0.026%
CHLORAMPHENICOL							
GC Chloramphenicol - FDA Method	0	0	5	0	5	0	0%
Lak Tek - Chloramphenicol	46	0	0	0	46	0	0%
MACROLIDES							
Charm II Tablet Competitive - Macrolides	985	1	49	0	1,034	1	0.097%
Charm II Tablet Sequential - Macrolides	549	0	84	0	633	0	0%
NOVOBIOCIN							
Charm II Tablet Competitive - Novobiocin	48	0	0	0	48	0	0%
SULFONAMIDES							
Charm I/Cowside II Tablet - Sulfonamides	248	0	0	0	248	0	0%
Charm II Liquid - Sulfonamides	0	0	4	0	4	0	0%
Charm II Tablet Competitive - Sulfonamides	72,617	18	70	2	72,687	20	0.028%
Charm II Tablet Sequential - Sulfonamides	39,992	20	403	0	40,395	20	0.050%
TLC Sulfonamide	0	0	1	1	1	1	100%
SULFACHLOROPYRIDAZINE							

**Table 8-1 -- Number of Tests by Method by Family/Drug
Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFADIAZINE							
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	11,921	2	3,239	0	15,160	2	0.013%
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFAMERAZINE							
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	11,921	1	3,239	1	15,160	2	0.013%
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
ID Block - Sulfamethazine	66	0	0	0	66	0	0%
Lak Tek - Sulfamethazine	24,981	1	0	0	24,981	1	0.004%
SULFAPYRIDINE							
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFANILAMIDE							
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
SULFAQUINOXALINE							
Other (Test Method Not Identified)	0	0	50	0	50	0	0%

**Table 8-1 -- Number of Tests by Method by Family/Drug
Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	11,921	0	3,239	0	15,160	0	0%
Other (Test Method Not Identified)	0	0	50	0	50	0	0%
TETRACYCLINES							
Charm II Tablet Competitive - Tetracyclines	51,774	78	565	2	52,339	80	0.153%
Lak Tek - Tetracyclines	7,213	0	30	0	7,243	0	0%
Snap - Tetracyclines	15,450	3	2,361	11	17,811	14	0.079%
CHLORTETRACYCLINE							
HPLC Tetracyclines - Chlortetracycline	0	0	27	0	27	0	0%
OXYTETRACYCLINE							
HPLC Tetracyclines - Oxytetracycline	0	0	27	0	27	0	0%
TETRACYCLINE							
HPLC Tetracyclines - Tetracycline	0	0	27	2	27	2	7.407%
TOTALS	3,176,928	3,627	32,560	205	3,209,488	3,832	0.119%

**Table 8-2 -- Number of Tests by Method by Family/Drug
Grade A Pasteurized Fluid Milk and Milk Products
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
AMINOGLYCOSIDES							
Charm II Tablet Sequential - Aminoglycosides	0	0	33	0	33	0	0%
GENTAMICIN							
Charm II Tablet Competitive - Gentamicin	0	0	168	0	168	0	0%
Cite Probe Gentamicin	40	0	174	0	214	0	0%
Lak Tek - Gentamicin	0	0	32	0	32	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	694	0	19,416	0	20,110	0	0%
Charm I/Cowside II Tablet - Beta-Lactams	1,386	0	46	0	1,432	0	0%
Charm II Tablet Competitive - Beta-Lactams	0	0	40	0	40	0	0%
Charm II Tablet Sequential - Beta-Lactams	1,598	0	3,600	0	5,198	0	0%
Delvotest P 5 Pack - Beta-Lactams	0	0	498	0	498	0	0%
Delvotest P/Delvotest P Mini - Beta-Lactams	360	0	362	0	722	0	0%
Delvotest SP/Delvotest SP Mini - Beta-Lactams	1,021	0	0	0	1,021	0	0%
Difco BSDA - Beta-Lactams	3,478	0	29,969	0	33,447	0	0%
Lak Tek - Beta-Lactams	0	0	1,655	0	1,655	0	0%
Penzyme III Test - Beta-Lactams	226	0	0	0	226	0	0%
Snap (Reader) - Beta-Lactams	178	0	429	0	607	0	0%

**Table 8-2 -- Number of Tests by Method by Family/Drug
Grade A Pasteurized Fluid Milk and Milk Products
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Snap - Beta-Lactams	3,248	0	8,878	0	12,126	0	0%
CEFTIOFUR							
Lak Tek - Ceftiofur	0	0	1	0	1	0	0%
MACROLIDES							
Charm II Tablet Sequential - Macrolides	165	0	0	0	165	0	0%
SULFONAMIDES							
Agri-Screen for Sulfonamides	40	0	0	0	40	0	0%
Charm II Tablet Competitive - Sulfonamides	126	0	41	0	167	0	0%
Charm II Tablet Sequential - Sulfonamides	46	0	212	0	258	0	0%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	6	0	174	0	180	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	6	0	174	0	180	0	0%
Lak Tek - Sulfamethazine	0	0	32	0	32	0	0%
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	6	0	174	0	180	0	0%
TETRACYCLINES							
Charm II Tablet Competitive - Tetracyclines	4	0	126	0	130	0	0%

**Table 8-2 -- Number of Tests by Method by Family/Drug
Grade A Pasteurized Fluid Milk and Milk Products
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Snap - Tetracyclines	40	0	174	0	214	0	0%
TOTALS	12,668	0	66,408	0	79,076	0	0%

**Table 8-3 -- Number of Tests by Method by Family/Drug
Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
AMINOGLYCOSIDES							
Charm II Tablet Sequential - Aminoglycosides	0	0	131	0	131	0	0%
GENTAMICIN							
Charm II Tablet Competitive - Gentamicin	0	0	15	3	15	3	20%
Cite Probe Gentamicin	4	0	55	0	59	0	0%
Lak Tek - Gentamicin	100	0	322	0	422	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	77,753	47	52,934	184	130,687	231	0.177%
Charm I/Cowside II Tablet - Beta-Lactams	3,014	1	956	1	3,970	2	0.050%
Charm II Tablet Competitive - Beta-Lactams	7,874	8	2,784	0	10,658	8	0.075%
Charm II Tablet	167	11	1,003	0	1,170	11	0.940%

**Table 8-3 -- Number of Tests by Method by Family/Drug
Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Quantitative - Beta-Lactams							
Charm II Tablet Sequential - Beta-Lactams	6,225	28	9,801	8	16,026	36	0.225%
Delvo-X-PRESS - Beta-Lactams	4,587	15	0	0	4,587	15	0.327%
Delvotest P 5 Pack - Beta-Lactams	6,298	8	0	0	6,298	8	0.127%
Delvotest P/Delvotest P Mini - Beta-Lactams	54,328	63	1,592	16	55,920	79	0.141%
Delvotest SP/Delvotest SP Mini - Beta-Lactams	815	0	0	0	815	0	0%
Difco BSDA - Beta-Lactams	477,783	960	110,800	109	588,583	1,069	0.182%
Lak Tek - Beta-Lactams	730	11	24,401	12	25,131	23	0.092%
Penzyme III Test - Beta-Lactams	506	2	0	0	506	2	0.395%
Penzyme Milk Test - Beta-Lactams	2,937	11	0	0	2,937	11	0.375%
Snap (Reader) - Beta-Lactams	1,193	43	4	4	1,197	47	3.926%
Snap (Visual) - Beta-Lactams	179	0	0	0	179	0	0%
Snap - Beta-Lactams	11,766	116	12,925	18	24,691	134	0.543%
CEFTIOFUR							
Lak Tek - Cefotiofur	44	1	0	0	44	1	2.273%
CLOXACILLIN							
Charm II Tablet Quantitative - Cloxacillin	3	0	0	0	3	0	0%

**Table 8-3 -- Number of Tests by Method by Family/Drug
Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Charm II Test for Cloxacillin in Milk	0	0	1	0	1	0	0%
SULFONAMIDES							
Charm II Tablet Competitive - Sulfonamides	3,164	0	0	0	3,164	0	0%
Charm II Tablet Sequential - Sulfonamides	0	0	131	0	131	0	0%
TLC Sulfonamide	0	0	2	2	2	2	100%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	116	0	18	0	134	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	116	0	18	2	134	2	1.493%
Lak Tek - Sulfamethazine	66	0	257	0	323	0	0%
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	116	0	18	0	134	0	0%
TETRACYCLINES							
Charm II Tablet Competitive - Tetracyclines	0	0	188	5	188	5	2.660%
Lak Tek - Tetracyclines	87	0	56	0	143	0	0%
Snap - Tetracyclines	19	2	38	0	57	2	3.509%
CHLORTETRACYCLINE							
HPLC Tetracyclines - Chlortetracycline	0	0	119	0	119	0	0%

**Table 8-3 -- Number of Tests by Method by Family/Drug
Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulator y Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
OXYTETRACYCLINE							
HPLC Tetracyclines - Oxytetracycline	0	0	119	0	119	0	0%
TETRACYCLINE							
HPLC Tetracyclines - Tetracycline	0	0	119	2	119	2	1.681%
TOTALS	659,990	1,327	218,807	366	878,797	1,693	0.193%

**Table 8-4 -- Number of Tests by Method by Family/Drug
Grade A Other (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
AMINOGLYCOSIDES							
Charm II Tablet Competitive - Aminoglycosides	472	0	6	0	478	0	0%
Charm II Tablet Sequential - Aminoglycosides	0	0	25	0	25	0	0%
GENTAMICIN							
Charm II Tablet Competitive - Gentamicin	472	0	46	0	518	0	0%
Cite Probe Gentamicin	1,318	1	25	0	1,343	1	0.074%
ID Block - Gentamicin	0	0	4	0	4	0	0%
Lak Tek - Gentamicin	0	0	93	0	93	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	4,434	0	2,724	0	7,158	0	0%
Charm I Liquid - Beta-Lactams	973	0	0	0	973	0	0%
Charm I/Cowside II Tablet - Beta-Lactams	6,678	2	23	0	6,701	2	0.030%
Charm II Tablet Competitive - Beta-Lactams	11,361	0	4	0	11,365	0	0%
Charm II Tablet Quantitative - Beta-Lactams	0	0	142	0	142	0	0%
Charm II Tablet Sequential - Beta-Lactams	18,900	1	528	0	19,428	1	0.005%
Delvotest P/Delvotest P Mini - Beta-Lactams	314	0	0	0	314	0	0%
Delvotest SP/Delvotest	864	0	0	0	864	0	0%

**Table 8-4 -- Number of Tests by Method by Family/Drug
Grade A Other (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
SP Mini - Beta-Lactams							
Difco BSDA - Beta-Lactams	20,508	2	4,553	0	25,061	2	0.008%
Lak Tek - Beta-Lactams	20,420	8	172	0	20,592	8	0.039%
Penzyme III Test - Beta-Lactams	2,897	2	0	0	2,897	2	0.069%
Penzyme Milk Test - Beta-Lactams	26	0	0	0	26	0	0%
Snap (Reader) - Beta-Lactams	1,616	1	0	0	1,616	1	0.062%
Snap (Visual) - Beta-Lactams	435	1	2	0	437	1	0.229%
Snap - Beta-Lactams	26,355	24	610	0	26,965	24	0.089%
CEFTIOFUR							
Lak Tek - Cefotiofur	2,197	0	0	0	2,197	0	0%
CHLORAMPHENICOL							
Charm II Tablet Competitive - Chloramphenicol	472	0	0	0	472	0	0%
MACROLIDES							
Charm I/Cowside II Tablet - Macrolides	0	0	22	0	22	0	0%
Charm II Tablet Sequential - Macrolides	472	0	9	0	481	0	0%
NOVOBIOCIN							
Charm II Tablet Competitive - Novobiocin	473	0	0	0	473	0	0%
SULFONAMIDES							
Charm II Liquid -	0	0	54	0	54	0	0%

**Table 8-4 -- Number of Tests by Method by Family/Drug
Grade A Other (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Sulfonamides							
Charm II Tablet Competitive - Sulfonamides	1,113	0	46	0	1,159	0	0%
Charm II Tablet Sequential - Sulfonamides	0	0	25	0	25	0	0%
SULFACHLOROPYRIDAZINE							
HPLC 8 Sulfonamides - Sulfachloropyridazine	0	0	1	0	1	0	0%
SULFADIAZINE							
HPLC 8 Sulfonamides - Sulfadiazine	0	0	1	0	1	0	0%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	5,761	2	528	0	6,289	2	0.032%
HPLC 8 Sulfonamides - Sulfadimethoxine	0	0	1	0	1	0	0%
SULFAMERAZINE							
HPLC 8 Sulfonamides - Sulfamerazine	0	0	1	0	1	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	5,761	0	528	0	6,289	0	0%
HPLC 8 Sulfonamides - Sulfamethazine	0	0	1	0	1	0	0%
SULFAPYRIDINE							
HPLC 8							

**Table 8-4 -- Number of Tests by Method by Family/Drug
Grade A Other (milk from silos, over-the-road tankers, etc.)
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Sulfonamides - Sulfapyridine	0	0	1	0	1	0	0%
SULFAQUINOXALINE							
HPLC 8 Sulfonamides - Sulfaquinoxaline	0	0	1	0	1	0	0%
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	5,761	0	528	1	6,289	1	0.016%
HPLC 8 Sulfonamides - Sulfathiazole	0	0	1	0	1	0	0%
TETRACYCLINES							
Charm II Tablet Competitive - Tetracyclines	1,035	0	31	0	1,066	0	0%
Lak Tek - Tetracyclines	29	0	72	0	101	0	0%
Snap - Tetracyclines	2,656	0	504	1	3,160	1	0.032%
CHLORTETRACYCLINE							
HPLC Tetracyclines - Chlortetracycline	0	0	1	0	1	0	0%
OXYTETRACYCLINE							
HPLC Tetracyclines - Oxytetracycline	0	0	1	0	1	0	0%
TETRACYCLINE							
HPLC Tetracyclines - Tetracycline	0	0	1	0	1	0	0%
TOTALS	143,773	44	11,315	2	155,088	46	0.030%

**Table 8-5 -- Number of Tests by Method by Family/Drug
Non-Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
GENTAMICIN							
Cite Probe Gentamicin	318	0	18	0	336	0	0%
Lak Tek - Gentamicin	0	0	15	0	15	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	550	1	196	0	746	1	0.134%
Charm I/Cowside II Tablet - Beta-Lactams	2,246	2	0	0	2,246	2	0.089%
Charm II Liquid - Beta-Lactams	41	0	0	0	41	0	0%
Charm II Tablet Competitive - Beta-Lactams	25,513	37	0	0	25,513	37	0.145%
Charm II Tablet Sequential - Beta-Lactams	12,317	7	0	0	12,317	7	0.057%
Charm II Tablet Transit - Beta-Lactams	5,944	2	0	0	5,944	2	0.034%
Delvotest P/Delvotest P Mini - Beta-Lactams	2,038	0	0	0	2,038	0	0%
Delvotest SP/Delvotest SP Mini - Beta-Lactams	796	0	0	0	796	0	0%
Difco BSDA - Beta-Lactams	311	0	0	0	311	0	0%
Lak Tek - Beta-Lactams	35,493	33	52	2	35,545	35	0.098%
Penzyme III Test - Beta-Lactams	71,364	44	0	0	71,364	44	0.062%
Penzyme Milk Test - Beta-Lactams	19,728	14	0	0	19,728	14	0.071%
Snap (Reader) -	2,007	2	0	0	2,007	2	0.100%

**Table 8-5 -- Number of Tests by Method by Family/Drug
Non-Grade A Bulk Milk Pickup Tanker
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Beta-Lactams							
Snap (Visual) - Beta-Lactams	7,840	4	0	0	7,840	4	0.051%
Snap - Beta-Lactams	191,915	333	47	0	191,962	333	0.173%
CEFTIOFUR							
Lak Tek - Cefiofur	0	0	30	0	30	0	0%
SULFONAMIDES							
Charm II Tablet Sequential - Sulfonamides	4	0	0	0	4	0	0%
TLC Sulfonamide	327	0	0	0	327	0	0%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	195	0	15	0	210	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	195	0	15	0	210	0	0%
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	195	0	15	0	210	0	0%
TETRACYCLINES							
Snap - Tetracyclines	959	1	45	0	1,004	1	0.100%
TOTALS	380,296	480	448	2	380,744	482	0.127%

**Table 8-6 -- Number of Tests by Method by Family/Drug
Non-Grade A Pasteurized Fluid Milk and Milk Products
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	9	0	358	1	367	1	0.272%
Delvotest P 5 Pack - Beta-Lactams	0	0	27	0	27	0	0%
Difco BSDA - Beta-Lactams	34	0	351	1	385	1	0.260%
TOTALS	43	0	736	2	779	2	0.257%

**Table 8-7 -- Number of Tests by Method by Family/Drug
Non-Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
GENTAMICIN							
Cite Probe Gentamicin	0	0	14	0	14	0	0%
BETA-LACTAMS							
Charm BSDA Tablet - Beta-Lactams	4,131	7	3,484	4	7,615	11	0.144%
Charm I/Cowside II Tablet - Beta-Lactams	103	0	0	0	103	0	0%
Charm II Tablet Competitive - Beta-Lactams	1	0	0	0	1	0	0%
Charm II Tablet Quantitative - Beta-Lactams	0	0	1	0	1	0	0%
Charm II Tablet Sequential - Beta-Lactams	420	0	0	0	420	0	0%
Delvotest P/Delvotest	1,965	3	0	0	1,965	3	0.153%

**Table 8-7 -- Number of Tests by Method by Family/Drug
Non-Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
P Mini - Beta-Lactams							
Delvotest SP/Delvotest SP Mini - Beta-Lactams	899	0	0	0	899	0	0%
Difco BSDA - Beta-Lactams	70,656	193	2,537	0	73,193	193	0.264%
Lak Tek - Beta-Lactams	428	0	0	0	428	0	0%
Penzyme III Test - Beta-Lactams	500	0	0	0	500	0	0%
Penzyme Milk Test - Beta-Lactams	385	0	0	0	385	0	0%
Snap (Reader) - Beta-Lactams	1	1	0	0	1	1	100%
Snap (Visual) - Beta-Lactams	125	0	0	0	125	0	0%
Snap - Beta-Lactams	4,038	59	0	0	4,038	59	1.461%
SULFONAMIDES							
Charm II Tablet Competitive - Sulfonamides	0	0	12	1	12	1	8.333%
SULFADIMETHOXINE							
Cite Sulfa Trio - Sulfadimethoxine	0	0	83	0	83	0	0%
SULFAMETHAZINE							
Cite Sulfa Trio - Sulfamethazine	0	0	83	0	83	0	0%
SULFATHIAZOLE							
Cite Sulfa Trio - Sulfathiazole	0	0	83	0	83	0	0%
TETRACYCLINES							

**Table 8-7 -- Number of Tests by Method by Family/Drug
Non-Grade A Producer
October 1, 1995 to September 30, 1996**

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulator y Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
Snap - Tetracyclines	0	0	17	0	17	0	0%
CHLORTETRACYCLINE							
HPLC Tetracyclines - Chlortetracycline	0	0	4	0	4	0	0%
	OXYTETRACYCLINE						